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ABSTRACT

This report focuses on the use of nationally recognized, industry-based skill standards and occupational certifications that promote certificate portability, skill transferability, worker mobility, and education and training consistency within and across states and nationwide. Chapters 1, 2, and 3 define what is meant by skill standards and certifications, present the case for their use, and discuss their benefits for individuals, employers, educators and trainers, Workforce Investment Boards (WIBs), and others. Chapters 4, 5, and 6 outline the mission of the National Skill Standards Board and its role in developing and promoting an industry-based skill standards and certifications system and then examine some key representative applications in education and training delivery systems and in WIB contexts. Chapters 7, 8, and 9 provide WIBs with a practical 22-step process approach for identifying and selecting industry-based occupational certifications that match local-, regional-, and state-determined workforce needs; explain the purpose and advantages of the locally designed Work Readiness Certification; and provide a brief resource guide to WIBs for further follow-up assistance. (YLB)

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National Skill Standards Board

An Introduction to the Use of Skill Standards and Certifications in WIA Programs – 2002

January 25, 2002

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WHO WE ARE ...

The **National Skill Standards Board (NSSB)** is a coalition of leaders from business, labor, employee, education, community organizations, and civil rights groups that was established in 1994 to build a voluntary national system of skill standards, assessments, and certifications. The goal of this effort is to define and promote high skills U.S. workforce education and training that can lead to the greater global competitiveness of U.S. businesses, thereby raising the living standard of all Americans.

NSSB skill standards, which form the foundation of this new system, are being identified by Voluntary Partnerships – industry coalitions working in full partnership with labor, civil rights, and community-based organizations. The new emerging system of skill standards, assessments, and certifications is benefiting from the many contributions of local, state, and federal workforce training practitioners, and education administrators and instructors, from across the nation.

As 2002 begins, the NSSB has approved final skill standards for the manufacturing, and sales and service industries. Both the NSSB sponsored Manufacturing Skill Standards Council (MSSC) and Sales & Service Voluntary Partnership (S&SVP) have advanced to work on the development of assessments and core and concentration certifications in their industry sectors. Meanwhile, initial skill standards development work is on-going in the education and training, hospitality and tourism, information technology and telecommunications, and utilities sectors of the United States economy.

The NSSB is also involved in assisting states and localities in the use of industry-based skill standards and certifications in their education and workforce training programs. This assistance is in response to state and local requests, and involves secondary career and technical education endeavors; community and technical college programs; WIB training activities; state apprenticeship projects, and others.

In addition, the NSSB sponsored State Skill Standards Working Group (SSSWG) is helping to link individual state skill standards development/adaptation efforts with the emerging national system. Now in its third year, the SSSWG has grown to a membership of 21 States.

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Overview

Nationally recognized, industry-based skill standards and occupational certifications promote certificate portability, skill transferability, worker mobility, and education and training consistency within and across states, and nationwide.

These industry-based skill standards and certifications provide significant, clear-cut, tangible benefits to Workforce Investment Boards (WIBs) and other regulatory agencies, as well as employers, individuals, education and training providers, and others. With the driving force for the development and use of skill standards and certifications in workforce education and training coming directly from business and industry, their assimilation into WIB programmatic activities helps to directly align these efforts with overall WIB goals and accountability requirements, and to make them more relevant to employers.

WIB Responsibility and Accountability

State and local WIBs were established as part of the reauthorization and revitalization of the nation's major job training programs under the federal Workforce Investment Act (WIA) of 1998 (Public Law 105-220). This new structure gives WIBs both policy and oversight responsibility for the establishment and performance of WIA-funded programs and activities.

In particular, WIBs now have substantial responsibility and accountability for the effective and efficient operation of One-Stop Centers, which combine multiple sources of federal, state, and local program funds into a single delivery system. In short, each local WIB must ensure that its structure of One-Stop Centers is –

- Being market-driven;
- Providing easy access to any individual who wants or needs a job, education, or training;
- Supplying well-trained individuals for all employers in their service area;
- Serving as a resource for employer assistance, as a support for life-long learning initiatives, and as a facilitator for the creation of a high-performance workforce.

WIBs also have special responsibilities for providing intensive services for dislocated adult workers and low-income youth from ages 14 through 21.

Mission of the National Skill Standards Board

The NSSB is currently working on the development and implementation of a comprehensive, voluntary, national system of skill standards, assessments, and

certifications for the benefit of the current and emerging human capital skill needs of the United States economy.

As a business-led collaboration of employers, labor unions, educators and trainers, civil rights groups, and community organizations, the NSSB directs research and development activities that support the program design and operational responsibilities of WIBs, and offer them key resource tools to use in meeting their objectives.

In particular, the NSSB State Engagement Strategy provides representative examples of ways that WIBs are successfully using existing industry-based skill standards and certifications to strengthen and enhance provider program offerings and trainee results.

The responsibilities of the NSSB and state and local WIBs represent a harmony between focused workforce research and development and the actual implementation and delivery of related occupational skills preparation programs. The voluntary, national system of skill standards, assessments, and certifications being developed by the NSSB provides a key practical set of tools that are ready-made for use by WIBs in accomplishing their day-to-day service delivery tasks.

Structure of This Report

The chapters of this Report that follow develop and support these summary concepts using three major topical groupings:

- Chapters 1, 2, and 3 define what is meant by skill standards and certifications, present the case for their use, and discuss their benefits for individuals, employers, educators and trainers, WIBs, and others.

- Chapters 4, 5, and 6 outline the mission of the NSSB and its role in developing and promoting an industry-based skill standards and certifications system, and then examine some key representative applications in education and training delivery systems and in WIB contexts;

- Chapters 7, 8, and 9 provide WIBs with a practical 22-Step Process approach for identifying and selecting industry-based occupational certifications that match local, regional, and state determined workforce needs; explain the purpose and advantages of the locally designed Work Readiness Certification; and provide a brief resource guide to WIBs for further follow-up assistance.

I. Definition of Skill Standards and Occupational Certifications

Skill Standards

"Skill standards," as defined by the National Skill Standards Board (NSSB), are "performance specifications that identify the knowledge, skills, and abilities an individual needs to succeed in the workplace." They delineate what a person must know and be able to do in order to perform related work successfully at a specific job, within an occupational cluster, or across an industry sector. Skill standards include required knowledge and skills, levels of achievement, and designated means of measurement for determining the acquisition of these proficiencies. Skill standards should be competency-based and quantifiable. They should also be clearly stated, concise, and user-friendly.

Skill standards are: a) industry driven; b) determined by methodologically appropriate, comprehensive, and rigorous empirical research/job analysis (on work/worker requirements); and c) carefully validated by a statistically significant, broad-based, diverse, and geographically representative sampling of employers and workers across their area of application (industry sector, occupational cluster, specific job classification). The development and utilization of skill standards should be legally defensible, current and up-to-date, accessible to and inclusive of all relevant stakeholders, and in compliance with all applicable laws and regulations (e.g., civil rights, equal employment opportunity, etc.).

Skill standards, in combination with training, assessment, and certification, provide a cohesive systems approach for generating, organizing, and portraying information about work performance. If skill standards are the only resources available, however, users will have to develop related assessments and certification procedures to secure optimum utilization of this systemic construct.

Examples of available nationally recognized, industry-based skill standards include: bioscience (Education Development Center); chemical process industries (American Chemical Society); electronics (American Electronics Association); health care (Far West Laboratory); manufacturing (Manufacturing Skill Standards Council); printing (Graphics Arts Technical Foundation); and sales (Sales and Service Voluntary Partnership).

Occupational Certifications

Occupational certifications are self-contained, end-result processes by which the mastery of predetermined knowledge and skills is demonstrated through appropriate assessment protocols, and affirmed through the award of related credentials. Certifications attest to, and publicly recognize, an individual's attainment of the knowledge and skill qualifications required to work at a specific job, within an occupational cluster, or across an industry sector. They provide impartial, third party verification of a person's expertise, and industry-driven, tangible evidence of his/her achievement in reaching necessary proficiency levels.

Assessment is the critical element of a competency-based certification process. All involved assessment methods, scoring techniques, and related outcomes should be valid, reliable, objective, unbiased, and criterion-referenced.

Credentials usually take the form of a paper certificate, a pocket/wallet card, or a shoulder patch; customarily allow recipients to use a particular designation symbol after their names (e.g., Jane Jones, CPA – Certified Public Accountant); and frequently include listing in a centralized registry maintained by the certifying organization. They also often satisfy regulatory or licensure requirements.

The majority of occupational certifications currently in use apply to specific jobs or skill sets. To become certified, a candidate has to successfully demonstrate his/her performance capabilities across a common body of knowledge/skill requirements for a certain occupation. In order to accurately, consistently, objectively, and unbiasedly measure an individual's competence against an established set of criteria, certification processes must be based on current, real-world, job-related content, functions, tasks, duties, and responsibilities.

Ideally, the competencies that are the foundation of any specific occupational certification are grounded in clearly articulated, rigorously developed, and carefully validated skill standards. However, if this is not the case, quality occupational certification processes can also be based on surveys of a wide range of people working in the particular occupation. Such surveys, which become the basis for most occupational certifications not founded on skill standards, are variously called job or work analyses, task analyses, task surveys, and role delineation studies. A thorough, detailed, and extensive job analysis or role study should be completed before the assessment approach is developed.

Appropriate assessment procedures are then developed and customized to the occupation's particular requirements. Assessment methods are regularly updated according to the changing needs of this specific occupation. Most of today's quality occupational certifications are created, sponsored, and administered by, or supported, endorsed, and accredited by leading national/international industry, trade, or professional associations.

Examples of available, nationally recognized, industry-based occupational certifications include: A+ Certification (Computing Technology Industry Association); Certified Internet Webmaster Certifications Series (Prosoft Training); Certified Automobile Technician (National Institute for Automotive Service Excellence); Certified Electronics Technician (Electronics Technicians Association, International); Child Development Associate Certification (Council for Professional Recognition); Entry Level, Advanced, and Expert Welders Certifications (American Welding Society); Machining Skills Level I Certification and Metal Forming Skills Level I Certification (National Institute for Metalworking Skills).

Returns on Investment

The greatest economies of scale are afforded by nationally recognized, industry-based, and industry-validated skill standards and occupational certifications. They promote the following key returns on investment:

- Certificate Portability – Related credentials are widely sought, accepted, and utilized by employers nationwide. For example, the Automobile Technician Certification awarded by the National Institute for Automotive Service Excellence (ASE) is required for new employees of most automobile service establishments from coast to coast and border to border.

- Skill Transferability – Individuals possessing such credentials, e.g., ASE Certified Automobile Technician, are able to be functionally productive for different employers with the same occupational competency requirements either across town or across the country. In addition, a well-credentialed workforce is a powerful economic development tool to attract new businesses/industries seeking to hire and retain already trained workers possessing immediately transferable skills.

- Worker Mobility – Workers holding nationally recognized, industry-based credentials are able to make interstate/intrastate work-oriented relocations with greater career stability, economic security, and personal freedom than ever before. People are provided with a more solid foundation to pursue continuous improvement and lifelong learning. This is especially important now, since on average, a person changes jobs 5 – 7 times during his/her working life.

- Education and Training Consistency – Preparation for a particular type of work is consistent across a geographical area when all involved providers of instruction in that occupation align their learning objectives and curricula with the same nationally recognized, industry-based knowledge and skill specifications. For example, electronics technician courses of study, whether being offered by WIA-funded activities, Perkins III programs, post-secondary institutions, apprenticeship projects, Job Corps centers, proprietary schools, or employers themselves, would all prepare their students/trainees to pass the Certified Electronics Technician examination administered by the Electronics Technicians Association, International. Such multi-system, cross-funding stream education and training program consistency furnishes a strong foundation for congruent and successful workforce development initiatives anywhere in the country.

II. Need for Skill Standards and Occupational Certifications

The need for nationally recognized, industry-based skill standards and occupational certifications in this country is reflected by three coexisting sets of related circumstances: the demands of the "new economy," the current skills gap in the United States; and the prevalent inconsistency of occupational preparation across various education and training delivery systems.

Demands of the "New Economy"

Technology, globalization, and de-regulation are powerful forces driving economic change. Together, they are bringing about a "new economy" in America.

The "new economy" is an environment of constant change. It places value on broad knowledge and skills, flexibility, cross training, multi-tasking, teaming, problem solving, and project-based work. Factory workers are now expected to operate sophisticated equipment, work in teams, and take responsibility for quality control. Secretaries, instead of simply typing and taking shorthand, are now asked to manage information and work with complicated hardware and software. Forklift operators no longer just operate forklifts; they also track inventories using computerized databases. Most of today's, and nearly all of tomorrow's, employees will have to successfully interact with computers on the job. Workers in the "new economy" must possess the ability to learn and to re-tool, continually, throughout a career.

The way these knowledge and skill requirements are delineated and communicated must ensure:

- Business/industry buy-in and ownership, since they create employment and make hiring decisions;

- A foundation of competencies as the indicators of performance capacity, rather than simply seat-time or certificates of completion; and

- Widespread applicability, so that workers possessing portable credentials and transferable skills are able to freely and productively move between/among a broad range of companies within and across states, and employers are fully and justifiably confident in the knowledge and skills their new employees bring to the job.

The Skills Gap

The continued global economic competitiveness of the United States depends in large part on closing the wide gap between the knowledge and skills needed in today's technology-based workplace and the current low level of preparedness of this country's workforce.

According to the Hudson Institute study, *Workforce 2000: Work and Workers for the 21st Century*, more than one-half of America's youth leave school without foundation skills necessary to find and hold a good job. In *The Skills Gap 2001*, the National Association of Manufacturers found that: 8 out of 10 manufacturers experience a shortage of qualified workers; 26% of manufacturers report that workers lack basic math skills; more than 30% report that workers are deficient in basic comprehension and writing skills; and 59% say employees lack work readiness skills such as arriving on time and staying at work all day. More and more companies are being forced to provide basic remedial education services to their new employees.

Less than 50% of all new workers entering the workforce are equipped for a high-skill/high-wage job. In a national survey conducted by the U.S. Census Bureau on the hiring, training, and management practices of American businesses, employers overall responded that 20% of their current workers were not fully proficient in their jobs. Only one in five businesses considered at least 95% of their employees to be fully proficient. Employers participating in the survey expressed a general lack of confidence in the ability of schools and colleges to prepare young people for the workplace. Because of this, business/industry must assume the burden of conducting a great deal of technical training beyond that provided by community colleges and vocational schools, at a cost of more than $50 billion annually.

The National Federation of Independent Business notes that "the shortage of skilled, trained workers" is the number one problem of its members. A *Washington Post* survey of regional high-tech firms found that fewer than two in five job applicants had the appropriate skills required for employment. The Information Technology Association of America estimates that 425,000 information technology positions are currently unfilled nationwide, leading to lost business contracts, productivity reduction in a key sector of the "new economy," and offshore outsourcing of high tech work and jobs. Plans are being made to import three million new workers into the United States between now and 2005.

In *Conducting a Community Audit*, published in 2000 by the United States Department of Labor, it is noted, "the importance of documented skill standards and skill attainment is reflected in the spate of industry created, industry recognized standards and credentials. This is particularly true in the high technology occupations." The primary impetus for the use of nationally recognized, industry-based skill standards and occupational certifications in this country is coming directly from business/industry. A notable example is the A+ certification created, sponsored, and administered by the Computing Technology Industry Association (CompTIA).

CompTIA's vendor-neutral A+ certification is internationally recognized and accepted, with over 400,000 A+ certified technicians worldwide. (Vendor-specific certifications relate to the products of a particular company, e.g., Cisco Certified Network Associate, Microsoft Certified Systems Engineer, etc.).

CompTIA has found that IT companies consider independent certifications to be very important, and are willing to pay higher salaries to those individuals who have earned related industry sponsored and supported occupational credentials. Many companies, including IBM, Compaq, Gateway Country Stores, and Xerox require new employees to possess the A+ certification. A recent survey of member and non-member companies conducted by Hammes and Associates indicates that:

- 60% of all companies require their current workers to earn the A+ certification as a condition of continued employment; and
- 90% of CompTIA members either have the requirement in place or plan to do so in the near future.

Inconsistency of Occupational Preparation

All too often in this country, however, nationally recognized, industry-based skill standards and occupational certifications have not yet been embraced or instituted. Occupational preparation programs conducted across various education and training delivery systems (WIA, Perkins III, post-secondary, apprenticeship, Job Corps, proprietary schools, etc.) are teaching the same occupation within a given geographical area or jurisdiction using markedly different learning objectives, knowledge and skill content, and required proficiency levels. Frequently, successful completion of these programs is based on time in attendance, rather than verified attainment of competencies.

As a result, students/trainees become job applicants with widely divergent qualifications in the same occupation. Matching applicants to jobs becomes a problematic, expensive, and random process. Individuals can't go from job to job in the same occupation without significant retraining. Employers can't replace workers in the same occupation without spending additional time and money – resources that are sorely needed in other aspects of their businesses. This "revolving door" scenario is wasteful, dysfunctional, and far too common.

The National Institute for Metalworking Skills (NIMS) notes that in these circumstances, "everyone, schools and companies, train as they want to and none are training to the same standards. The result is that workers have no credentials, school transcripts are meaningless, and employers have to invent screening systems to find trainable people to hire." According to the Northwest Food Processors Association, "determination of needed skills and abilities, and continuing education can be achieved with greater accuracy and less corporate or personal expenditures by eliminating unneeded, random training." In a "Vocational Education Journal" survey on national skill standards, an excerpted, representative response declares that if "every vocational instructor would be expected to teach to nationally set standards" there would be "no more hit or miss instruction."

III. Benefits of Skill Standards and Occupational Certifications

Nationally recognized, industry-based skill standards and occupational certifications provide significant benefits to employers, individuals, education and training providers, and regulatory agencies.

Employers

Employers report spending a great deal of time and money on recruitment, hiring, and training (and on re-recruitment, re-hiring, and re-training), as they constantly seek to assemble and mold capable, productive, and competitive workforces. Companies can use nationally recognized, industry-based skill standards and occupational certifications to clearly communicate their knowledge and skill performance requirements, throughout their own organizations and to outside applicants.

Skill standards and occupational certifications will enable employers to accurately and reliably determine applicant and incumbent worker knowledge and skill proficiency levels, and to reduce their costs and risks when hiring new workers and promoting existing employees. Randomness, guesswork, and gut-feelings are then replaced by: applying valid, systematic evaluation of competency attainment; hiring the right person with the right capabilities the first time to negate the "revolving door" syndrome; focusing limited training resources more effectively on specific knowledge/skill gaps; reducing remediation expenses and turnover; and creating an appropriately skilled pool of workers.

Individuals

Individuals (including students/trainees, job seekers, transitional workers, dislocated workers, incumbent workers, etc.), need clear delineations of employer knowledge and skill performance requirements in order to successfully prepare for different types of work. They can use nationally recognized, industry-based skill standards and occupational certifications to effectively map out their career preparation pathways, with reasonable certainty about the related expectations, costs, and payoffs at each key point along the way.

Through skill standards and occupational certifications, job seekers and incumbent workers can realistically compare their current knowledge and skills with employer requirements, evaluate education and training programs against these requirements, make more informed decisions about spending limited training resources such as Individual Training Accounts, and receive greater returns on these investments. Once certified, individuals will be able to better communicate their knowledge and skill proficiency levels in terms that employers will readily understand, accept, and value, thereby expanding their long-term employability, employment prospects, and earnings potential.

Education and Training Providers

Education and training providers can use nationally recognized, industry-based skill standards and occupational certifications as guides for aligning/developing curricula and for tailoring/sequencing course content to equip program graduates with up-to-date knowledge and skills that meet the actual performance requirements of employers. Student customers will be drawn towards those occupational preparation programs that directly enable them to get, keep, and advance in jobs of their choosing.

Regulatory Agencies

Regulatory agencies, such as state and local education agencies and Workforce Investment Boards, can use nationally recognized, industry-based skill standards and occupational certifications to provide an organizing framework for successful education and workforce development initiatives. This makes these agencies better able to: serve and satisfy customers; secure consistency in occupational competency acquisition across funding streams; allocate and coordinate training resources; meet increasingly stringent performance measures; document outcomes; upgrade operational accountability; ensure program quality; improve delivery system capabilities on a continuous basis; and attain enhanced results (employment, retention, earnings, and knowledge/skill level increases).

IV. NSSB, the Voluntary National System of Skill Standards, and the State Engagement Strategy

In 1994, the United States Congress – with bi-partisan support – saw the value in encouraging the development of a voluntary national system of skill standards, assessments and certifications, and the need for an organizing vehicle to help bring together the various entities and elements required to accomplish this unique goal. The National Skill Standards Board was thus established to serve as the driving force for the development and build-out of the national system.

The National Skill Standards Act of 1994 gave the NSSB a two-part mandate. The first part is to be "a catalyst in stimulating the development and adoption of a voluntary national system of skill standards," that would "serve as a cornerstone of the national strategy to enhance workforce skills." This part is being pursued through the NSSB's fostering of "voluntary partnerships." The second part of the mandate is to "facilitate linkages between other components of the national strategy to enhance workforce skills, including school to work transition, secondary and post-secondary vocational-technical education, and job training programs." This part is being accomplished through the NSSB State Engagement Strategy.

The NSSB is lead by a governing board that consists of the U.S. Secretaries of Labor, Education, and Commerce; 12 members appointed by the President of the United States, and 12 members appointed by the leadership of the U.S. Congress.

Voluntary National System of Skill Standards

The NSSB approach calls for the organization of skill standards around families of related jobs in the following fifteen industry sectors:

- Agriculture, Forestry and Fishing;
- Business and Administrative Services;
- Construction;
- Education and Training;
- Finance and Insurance;
- Health and Human Services;
- Manufacturing, Installation and Repair;
- Mining;
- Public Administration, Legal and Protective Services;
- Restaurants, Lodging, Hospitality and Tourism, and Amusement and Recreation;
- Retail Trade, Wholesale Trade, Real Estate and Personal Services;
- Scientific and Technical Services;
- Telecommunications, Computers, Arts and Entertainment and Information;
- Transportation; and
- Utilities and Environmental and Waste Management.

Voluntary Partnerships (VPs) are the organizations that bear the responsibility for developing the broad core and work concentration standards for their respective industry sectors. VPs include representatives of employer organizations, organized labor, government, employee groups, civil rights and community-based organizations, and education and training agencies. The NSSB may contribute to their funding, and oversees their development work.

Currently, there are four operational VPs:

- The Manufacturing Skill Standards Council (MSSC), which released its NSSB approved Manufacturing Skill Standards in Spring 2001, and is presently working on core and concentration assessments and certifications for individuals.

- The Sales and Service Voluntary Partnership (S&SVP), which released its NSSB approved Sales and Service Skill Standards in Fall 2001, and is now working on core and concentration assessments and certifications for individuals.

- The Education and Training Voluntary Partnership (E&TVP), which is conducting the research that is a key component of the standards development process, and will have standards ready for approval in the near future.

- The Hospitality and Tourism Futures Voluntary Partnership (HTF), which is building its voluntary partnership structure, and which will shortly initiate its standards development process.

There are two additional industry sectors that are in the beginning phases of skill standards development:

- The Utilities and Environmental and Waste Management sector (Utility Industry Group); and

- The Telecommunications, Computers, Arts and Entertainment and Information sector (ITC Group).

With skill standards already developed and released for both the Manufacturing and Sales and Service industry sectors, the NSSB is currently working with these two VPs in the development of their assessment and certification processes.

Certification Recognition

The NSSB also designed and established in 2001 a certification recognition process to help users of industry-based certifications identify those that meet the highest professional and technical standards for quality assurance. To receive recognition, a certification must undergo a comprehensive review to ensure that it meets specific quality requirements. More particularly, the NSSB has designed evaluation criteria to assess the quality of the process that was used to develop a certification. These criteria place a

focus on three key areas that concern a certification's development: technical validity, industry acceptance, and alignment with the NSSB skill standards system.

State Engagement Strategy

The NSSB State Engagement Strategy has the following objectives:

- Facilitate widespread, value-added, uniform, and consistent application of skill standards and certifications by occupational preparation programs operating in different education and training delivery systems and funding streams, within and across states;

- Position nationally recognized, industry-based skill standards and occupational certifications in related state/local policies, procedural requirements, and performance/accountability measures; and

- Conduct pilot projects on various means of implementing skill standards and certifications, and develop replicable templates for interstate/intrastate use by a broad base of practitioners and organizations (WIA, Perkins III, post-secondary, apprenticeship, Job Corps, etc.).

NSSB's State Engagement Strategy is operative in some fashion in over forty states, through a wide range of activities. These efforts, which are works-in-progress at various start-up and operational stages, include:

- Research, information dissemination and resource brokering;

- Policy development, performance management, and system building; and

- Implementation/technical assistance, training, onsite consultations, and workshops/ presentations.

The following examples provide a representative sampling of key NSSB state engagement endeavors:

- Alaska Skill Standards Project – Comprehensive, consistent, and uniform integration of nationally recognized, industry-based skill standards and occupational certifications across Alaska's various education and training delivery systems and funding streams, e.g., WIA, Perkins III, post-secondary, and apprenticeship, in partnership with the state's seven business learning consortia (information technology, health care, construction, transportation, hospitality, seafood processing, and oil/natural gas processing). Establishment of related policies, procedures, and operational protocols.

- Louisiana Skill Standards Project – Identification, review, selection, and implementation of nationally recognized, industry-based certifications in

secondary and post-secondary occupational education courses of study and workforce development skills training programs operated under the umbrella of the Louisiana Unified Plan. Development of policies and procedures related to the use of occupational certifications in WIA-funded endeavors, the credential rate, the youth skill attainment rate, the eligibility of training providers, and the delivery of One-Stop Center services.

- New Jersey Skill Standards Project – Detailed research on the availability of nationally recognized, industry-based occupational certifications appropriate for use in providing training and career enhancement services to students, trainees, job seekers, and incumbent workers throughout the state. Preparation of NSSB report identifying over 1,200 certifications matched to 196 subgroups of the Classification of Instructional Programs (CIP) system (developed by the U.S. Department of Education) to be used in certifying eligible training providers for WIA supported activities operated under the New Jersey Unified Plan.

- Palm Beach County/Treasure Coast (Florida) Workforce Investment Board Skill Standards Project – Establishment of work readiness certification, a locally determined, cross-business/industry, portable, composite profile of the ideal entry level employee in the five county/two WIB area, comprising a single, customized set of skills (pre-employment, work maturity, employability, academic, and occupational/technical) for program participants. Incorporation of nationally recognized, industry-based certifications into community college occupational skills classroom training courses of study for emerging, transitional, dislocated, and incumbent workers. Institution of "training warranty" program.

- Virginia Skill Standards Project – Multi-phase effort featuring identification and customized descriptions of an extensive array of nationally recognized, industry-based occupational certifications that Virginia high school students can use to earn "verified credits" for graduation and special seals on their diplomas. Certifications must be carefully researched to meet stringent Virginia State Board of Education screening criteria and to match specific occupations organized under the state's sixteen "career family areas."

- National Association of Workforce Boards Engagement – Collaboration to secure state/local Workforce Investment Board pilot project sites. Implementation of related activities to demonstrate the efficacy of incorporating nationally recognized, industry-based skill standards and certifications into WIA efforts. Development of long-term approach for providing quality technical assistance and training to WIB policy makers and practitioners on how to integrate skill standards and occupational certifications into WIA program designs and operations. The first group of pilot project sites includes WIBs in Pennsylvania, New Jersey, Tennessee, North Carolina, and Oregon.

V. Application of Skill Standards and Occupational Certifications in Education and Training Delivery Systems Nationwide

Organized pubic sector supply-side use of nationally recognized, industry-based skill standards and occupational certifications is growing in the United States, primarily in the secondary and post-secondary education arenas, with some form of related policies and procedural requirements established in nearly forty states. However, the use of skill standards and certifications is presently quite minimal in WIA programs across the country. Fewer than 2% of state and local WIBs have policies and procedures in place that either require or encourage the use of standards and certifications in WIA-funded training efforts. As previously noted, a significant segment of NSSB state engagement strategy has been designed to address these circumstances.

Varieties of Application

States utilize nationally recognized, industry-based skill standards in a number of ways: they "use them as is;" they "adopt them" through formal/informal means of acceptance/ endorsement; and they "adapt/modify them" to meet particular state needs. Some states commit the resources and time necessary to develop their own skill standards. Individual states often employ two or more of these approaches to skill standards simultaneously. Nationally recognized, industry-based occupational certifications are used as is.

Skill standards can be used to drive learning objectives, curriculum content, instructional methods, teaching materials, and classroom/worksite activities. With skill standards alone, there is still a need for users to develop related assessments and certification formats. Quality certifications can also be used to drive learning objectives, etc. Additionally, however, quality certifications encompass uniform, third party assessment protocols and portable credentials recognized and accepted by employers nationwide. Where skill standards and occupational certifications are available for incorporation into WIB efforts, there is a much greater application of certifications because they offer a complete and ready-to-use package well suited to the WIA's outcomes-based orientation.

State Examples

The following representative examples illustrate some of the current state applications of nationally recognized, industry-based skill standards and occupational certifications in secondary education and post-secondary education and training across the country, without identifying all such activities that may be occurring in every state:

- State policies, codes, and/or regulations that career and technical education programs must use existing nationally recognized, industry-based skill standards and/or occupational certifications as program drivers, and base courses of study on their knowledge/skill requirements. Examples: AK (secondary); AL (secondary); GA (secondary); ID (secondary and post-secondary); IA (secondary); KY (secondary); MA (secondary); MI (secondary); NY (secondary);

OH (secondary and post-secondary); OK (secondary and post-secondary); PA (secondary and post-secondary); SD (post-secondary); VA (secondary); WA (secondary).

- Students must be given the opportunity to take occupational certification examinations. Examples: NY (secondary); OH (secondary and post-secondary).

- Career and technical education programs are to result in students earning certifications that will enable them to enter employment or apprenticeship, or secure advanced placement in post-secondary training or education. Examples: AK (secondary); WA (secondary).

- Occupational preparation programs must be based on existing nationally recognized, industry-based skill standards and/or occupational certifications, prepare students to satisfy their knowledge/skill requirements, and give students an opportunity to take related examinations. Moreover, a minimum percentage of the students from each class must pass the related examination, or the program is placed on probation and eventually discontinued. Incentives also are available to each course for high performance in student certification attainment. Examples: NJ (secondary and post-secondary).

- State requires programs to use skill standards and/or occupational certifications in order to receive state approval/accreditation. Examples: CO (secondary); MD (secondary and post-secondary); TN (secondary).

- Programs must attain nationally recognized, industry-based program certifications. Examples: AL (secondary); GA (secondary); LA (post-secondary); MA (secondary); OH (secondary and post-secondary).

- Instructors must attain nationally recognized, industry-based instructor certifications. Examples: LA (post-secondary); NY (secondary); OH (secondary and post-secondary); WA (secondary).

- Special matching grant funds are made available to assist in related program and instructor certification efforts. Examples: NJ (secondary and post-secondary); VA (secondary).

- Occupational certification attainment can be used to earn high stakes, verified credit for high school graduation and special (career and technical education) seal on high school diploma. Example: Virginia (secondary).

- Occupational certification attainment can be used to earn a technical endorsement on the high school diploma. Example: NY (secondary).

- State requires secondary articulation with post-secondary use of occupational certifications. Example: IA (secondary and post-secondary).

- State allows use of occupational certifications as an alternative to state mandated testing. Example: PA (secondary and post-secondary).

- Student attainment of occupational certifications is tracked by career and technical education schools at the local level. Example: OK (secondary and post-secondary).

- Voluntary guidelines that call for – using existing and relevant nationally recognized, industry-based skill standards and/or occupational certifications as the basis for competency-based learning objectives, curricula, instructional methods, teaching materials, and worksite activities; preparing students to satisfy employer knowledge and skill requirements assessed by related examinations; providing students with the opportunity to take these exams and receive certifications corresponding to their courses of study; having programs satisfy nationally recognized, industry-based program certification processes; and having instructors satisfy nationally recognized, industry-based instructor certification processes. Example: AK (post-secondary).

VI. Skill Standards and Occupational Certifications in a WIA Context

The use of nationally recognized, industry-based skill standards and occupational certifications in WIA efforts nationwide would:

- Provide the means to help successfully address the demands of the "new economy," the negative impact of the current skills gap in the United States, and the prevalent inconsistency of occupational preparation endeavors within and across states;
- Yield major benefits for key WIA stakeholders, including employers, job seekers and incumbent workers, education and training providers, and regulatory agencies; and
- Promote significant returns on investment, i.e., certificate portability, skill transferability, worker mobility, and education and training consistency.

Skill standards and occupational certifications would enable state and local WIBs to better allocate and coordinate training resources; increase operational effectiveness and accountability; enhance program quality and responsiveness; and achieve improved participant results (i.e., gains in knowledge/skill levels, employment, job retention, and earnings).

According to the Northwest Workforce Development Council of Bellingham, Washington, "skill based outcomes that articulate what employers require from workers create the framework to commonly evaluate assessment information, organize instruction and develop curriculum. They also provide a common certification to employers and customers of the skills attained and needed."

Unlike secondary and post-secondary education, utilization of skill standards and certifications under WIA is in the earliest stages. While the potential for growth in their use is vast, initial activities to incorporate skill standards and certifications into WIA-funded efforts should concentrate on establishing a solid, broad-based foundation for future expansion. Therefore, the focus herein will be on those key facets of WIA that provide immediate opportunities to facilitate/drive productive and beneficial WIB application of these important tools. These areas include:

- WIA policies and procedures;
- The credential rate;
- The youth skill attainment rate;
- Certification of eligible training providers; and
- One Stop Center services.

WIA Policies and Procedures

"Occupational skill attainment" and "job skills necessary to obtain employment opportunities" are emphasized throughout the Workforce Investment Act (in sections 106, 112, 118, 122, 129, 134, 136, 152, 154, 159, 166, 171, 181, 202, 203, 212, 223, 231, 242, 309, and 332). The substance and structure of WIA provide a clear foundation for the functional application and utilization of skill standards and occupational certifications.

Nationally recognized, industry-based skill standards and occupational certifications should be firmly embedded in policies and procedures at every level of each state's workforce investment system, including the state WIB, local WIBs, Unified Plan partner agencies, One Stop operators, and training providers. All of these entities should institute the practice that occupational training programs under WIA: a) align with/use existing nationally recognized, industry-based skill standards and certifications as the basis for developing competency-based learning objectives, curricula, instructional methods, teaching materials, and classroom/worksite activities; b) prepare their students/trainees to satisfy the employer knowledge and skill requirements assessed by related examinations; and c) provide their students/trainees with the opportunity to take these exams and receive certifications corresponding to their courses of study.

As noted previously, many states already require that secondary and post-secondary occupational education programs base their courses of study on nationally recognized skill standards and certifications available for currently offered areas of instruction. Related progress has been made towards incorporating skill standards and occupational certifications into WIA policies and procedures in several states, as follows:

- Texas's Plan endorses the development of "an industry-driven skill standards and certification system that identifies skills, knowledge, and levels of performance necessary for participants to succeed in the current and future workplace."

- New Jersey requires that participants completing occupational training programs in the state must take the formal licensing or certification examination related to their courses of study, where such examinations exist. Each of these programs' graduating classes has to attain an overall 70% passing rate, or the program is placed on probation. Failure to achieve this 70% passing rate for three consecutive years results in closure of the program. Should a program's graduating class obtain a 90% passing rate on the related examination, the program receives incentive funds.

- One of the key strategies in the Alaska Unified Plan is to "build a statewide standards system of voluntary skills for education and training in alignment with the Voluntary National System of Skill Standards being developed by the National Skill Standards Board." Its purpose is "to achieve workforce investment system improvements," including "gaining of skills and technical knowledge in Alaska's emerging and current workforce that meet the requirements of industry-

based, nationally recognized skill standards" and "enhancing and increasing the supply of trained and credentialed workers for good jobs in demand." Adult and dislocated worker programs in the state "direct training services towards attainment of nationally recognized certifications in industries and occupations that are in demand, based on state, regional, and/or local labor market information." Services to youth are designed to enable them "to achieve appropriate credentials and contribute effectively as productive members of Alaska's economy."

- Louisiana's Unified Plan emphasizes industry-based certifications in Title I, Youth, Perkins, Vocational Rehabilitation, and Adult Education. The Louisiana Workforce Commission has adopted the aforementioned underlined policy recommendation in its entirety.

The Credential Rate

WIA section 136 declares that one of the four core indicators of performance for employment and training activities involving adults, dislocated workers, and older youth (ages 19 – 21) shall be "attainment of a recognized credential relating to achievement of education skills. . .or occupational skills, by participants who enter unsubsidized employment, or by participants. . .who enter post-secondary education, advanced training, or unsubsidized employment."

The (occupational) credential rate for adults, dislocated workers, and older youth (ages 19 – 21) applicable to WIBs in each state should emphasize attainment of credentials based on nationally recognized, industry-based skill standards and occupational certifications.

In its "Master Set, Questions and Answers on WIA Implementation, Updated August, 2000," the U. S. Department of Labor states that "the Department also encourages states and local areas to use for their customers industry recognized credentials that are portable. A portable credential builds credibility with the employer community and is valued across state lines and across various institutions of higher education and companies."

The Alaska Unified Plan states that "the credential rate (for adults, dislocated workers, and youth ages 19 – 21) should emphasize the attainment of credentials based on nationally recognized, industry-based skill standards and occupational certifications."

The Louisiana Workforce Commission has adopted a measure which states that "the (occupational) credential rate for adults, dislocated workers, and older youth (ages 19-21) in Louisiana should emphasize attainment of credentials based on nationally recognized, industry-based skill standards and occupational certifications."

Youth Skill Attainment Rate

Section 136 of the Workforce Investment Act declares that one of the three core indicators of performance for youth activities involving younger youth (ages 14 – 18) shall be "attainment of basic skills and, as appropriate, work readiness or occupational skills."

The (occupational) skill attainment rate for younger youth (ages 14 – 18) applicable to WIBs in each state should emphasize occupational skills acquisition based on nationally recognized, industry-based skill standards and occupational certifications.

The Alaska Unified Plan states that "the youth (ages 14 – 18) skills attainment rate should emphasize occupational skills attainment based on nationally recognized, industry-based skill standards and occupational certifications."

The Louisiana Workforce Commission has adopted a measure which states that "the (occupational) skill attainment rate for younger youth (ages 14-18) in Louisiana should emphasize occupational skills acquisition based on nationally recognized, industry-based skill standards and occupational certifications."

Certification of Eligible Training Providers

Eligible training providers are those entities eligible to receive WIA Title I-B Individual Training Account (ITA) funds for delivery of occupational skills training to adult and dislocated worker participants. ITAs are established on behalf of those participants to enable them to purchase training services from eligible providers they select in consultation with their case managers. WIA Title I adults and dislocated workers access training through the eligible provider list.

According to WIA section 122, the Governor of each state shall establish a procedure for use by local WIBs in determining the initial eligibility of training providers. The initial period of eligibility is 18 months. The Governor shall also establish a procedure for local boards to use in determining the subsequent eligibility of training providers to continue to receive WIA funds, after the initial 18-month period expires. In establishing this procedure, the Governor shall necessitate that, to be subsequently eligible to receive funds, training providers will: a) submit the performance and program cost information described in subsection (d)(1) and any additional information "required" to be submitted in accordance with subsection (d)(2); and b) annually meet minimum acceptable levels of performance.

Under section 122(d)(1)(A), for a training provider to be determined subsequently eligible to receive funds, it must submit a variety of verifiable program-specific performance information, including "the rates of licensure or certification. . .of the graduates." However, this information item contains no mandate for training providers not currently using skill standards or occupational certifications to begin doing so in order to maintain their eligibility.

Under section 122(d)(2)(A), however, the Governor "may require" that a training provider submit such other verifiable program-specific performance information "as the Governor determines to be appropriate to obtain such subsequent eligibility." This information may include "the rates of licensure or certification of all individuals who complete the program," and "the percentage of individuals who complete the program who attain industry recognized occupational skills in the subject, occupation, or industry for which training is provided through the program." Making this information a requirement in order "to obtain. . .subsequent eligibility" would clearly present training providers with the impetus and imperative to use skill standards and occupational certifications relevant to the courses of study they offer WIA participants. Training providers would not be determined to be subsequently eligible to receive WIA funds unless they use such existing skill standards and occupational certifications in their programs.

Criteria should be established in each state specifying that training providers must use existing nationally recognized, industry-based skill standards and occupational certifications related to their courses of study, in order for them to be certified as subsequently eligible recipients of WIA vouchers from Individual Training Accounts. Governors should fully exercise their discretionary options under section 122(d)(2)(A) and "require" initially eligible training providers to submit information on the success of their program completers in attaining "industry recognized occupational skills" and obtaining "licensure or certification." States need to develop appropriate, user-friendly protocols to gather, verify, and document this information.

Related progress has been made in several states towards giving WIA training providers that use skill standards and occupational certifications preference in the process for certifying subsequent eligibility, as follows:

- Pennsylvania's Unified Plan endorses the use of skill standards as a factor in certifying eligible training providers under WIA, by stating that the "HRIC (Human Resources Investment Council) recommends that the certification process support the emerging strategy to link occupational education and training and personnel recruitment to national skill standards."

- Florida's Palm Beach County and Treasure Coast Workforce Investment Boards both "utilize identified skill standards, competencies, and certifications to procure and certify WIA training providers."

- Texas Rules for WIA Training Provider Certification Section 841.44, Determination of Subsequent Eligibility, subsection (b) declares that "No later than July 1, 2000, each Local Workforce Development Board shall ensure that training providers, in developing programs of training services and establishing performance criteria for successful program completion, use in descending order: 1) skill standards recognized or conditionally recognized by the Texas Skill Standards Board; 2) industry-endorsed skill standards; or 3) skill requirements determined by employers." Nationally recognized skill standards can be

"conditionally recognized by the TSSB" immediately as long as they meet basic TSSB criteria and are submitted to the TSSB by Texas employers. In order to be "recognized by the TSSB," these standards must also be validated with Texas employers and meet the specified recognition criteria set by the TSSB.

- New Jersey requires that training providers use existing nationally recognized, industry-based skill standards and occupational certifications applicable to their programs, in order to be included on the eligible provider list. The state has well-developed, user-friendly compliance procedures firmly in place.

- Under the Alaska Unified Plan, to be certified as an eligible training provider subsequent to the first eighteen months of WIA implementation, vendors must "base training on the requirements of industry-based, nationally recognized skill standards and occupational certifications, especially those endorsed by the National Skill Standards Board, that exist for the courses of study offered." The state will "encourage training providers and promote their services through publicized state recognition of achievement and cash incentives for high performers, especially those that successfully prepare their trainees/students to satisfy the knowledge and skill requirements assessed by nationally recognized occupational certification examinations."

  To qualify training program service providers for adults and dislocated workers, and to maintain a verifiable list of providers for customer use, the state and local WIBs in Alaska need information on their "use of nationally recognized, industry-based skill standards and occupational certifications" and the percentage of their participants "passing certification examinations and receiving related credentials in that field." Alaska's state and local WIBs will also develop criteria to identify effective and ineffective youth activities and providers. Consideration will be given to activities and providers that "demonstrate successful utilization of nationally recognized skill standards and occupational certifications."

- The Louisiana Workforce Commission has adopted a measure which states that "Louisiana's training providers should use existing nationally recognized, industry-based skill standards and occupational certifications related to their courses of study, in order for them to be certified as recipients of workforce funding (i.e., WIA vouchers from Individual Training Accounts)."

One Stop Center Services

According to WIA section 134(d), core and intensive services are to be provided to adult and dislocated workers through One Stop Centers. These services include: testing and assessment; information on the labor market, employment statistics, demand occupations, job vacancies, and skill requirements; career planning; career and individual counseling; individual employment planning; and job search/placement assistance. Under section 129(c), youth programs are to provide an objective assessment of academic levels, skill

levels, and service needs of each participant, and develop service strategies for each participant that take into account the results of those assessments.

To facilitate effective provision of core and intensive services, nationally recognized, industry-based skill standards and occupational certifications should be functionally integrated into One Stop Centers and information dissemination networks used by education and training providers for direct customer assistance at the service delivery level.

As described in the Alaska Unified Plan, Alaska's One Stop initiative has taken steps "to integrate client intake, assessment, and service delivery" through use of specific coordination strategies, including "incorporating nationally recognized skill standards and occupational certifications into One Stop Centers and information dissemination networks used by education and training providers for direct customer assistance at the service delivery level."

To build "the connections that put Alaskans into good jobs," Alaska's career planners and job seekers "need to know, for example, the occupations and industries that are expanding and declining, the earnings and benefits associated with different types of work, where training is available, where the jobs are, and the related nationally recognized standards and occupational requirements which must be satisfied." Because participants in the state are often low income, low skilled individuals, "their needs include assistance to determine an appropriate vocational goal, develop appropriate vocational plans, secure the resources to implement their vocational plans, and identify appropriate industry-based certifications for them to achieve."

The Louisiana Workforce Commission has adopted a measure which states that "information dissemination networks used by education and training providers for direct customer assistance at the service delivery level will incorporate nationally recognized, industry-based skill standards and occupational certifications (i.e., One-Stop Centers, partner agency web sites, and outreach.)"

The Alaska Approach

Alaska's innovative and comprehensive interagency approach to the utilization of nationally recognized, industry-based skill standards and occupational certifications is designed to produce immediate gains in the uniformity and consistency of occupational preparation conducted across various education and training delivery systems and funding streams in the state. Under this approach, individuals trained in the same occupation anywhere in Alaska (e.g., electronics technician) would all be prepared to pass the related certification examination in that field (e.g., the Certified Electronics Technician exam offered by the Electronics Technicians Association, International). This will occur whether their courses of study are provided through WIA-funded activities, Perkins III programs, state-funded efforts, post-secondary institutions, or apprenticeship projects.

Such education and training program consistency and alignment with employer knowledge and skill specifications affords an extremely strong foundation for successful workforce investment initiatives in Alaska. By incorporating and integrating nationally recognized, industry-based skill standards and occupational certifications into the plans and practices of WIA, Perkins III, state-funded, post-secondary, and apprenticeship endeavors throughout the state, Alaska is forging a truly unified workforce development system.

The Alaska Unified Plan contains progressive policies, procedures, and related provisions (covering the credential rate, the youth skill attainment rate, the eligible provider list, and the services available in One Stop Centers) to drive the productive use of standards and certifications in WIA activities throughout Alaska.

"Alaska's Future Workforce Strategic Policies and Investment Blueprint" calls for the state's occupational education and training system to "invest in occupational education and training programs that are market-responsive and consistent with nationally recognized, industry-based skill standards and occupational certifications through expanded use of career pathways, business learning consortia, registered apprenticeships, and on-the-job training." This system should "establish standardized curriculums for occupational education and training programs to align skill development, assessment and attainment levels with labor market needs, and achieve nationally recognized, industry-based skill standards and occupational certifications." The "Blueprint" states that the system's performance and effectiveness will be evaluated "in terms of its efficacy to. . .increase the supply of workers possessing nationally recognized, industry-based skill standards and occupational certifications for good jobs in demand" in Alaska.

The "Alaska Approach" has now entered its initial implementation stage. Skill standards and certifications will be sequentially phased in across the state's various education and training delivery systems and funding streams, based on business/industry priorities concerning pivotal occupations in demand. Alaska will work with NSSB to identify, access, research, screen, select, and incorporate existing skill standards and certifications that best meet business/industry needs in these occupational areas.

In accordance with the Alaska Unified Plan, "implementation assistance will be provided to workforce agencies, schools, industry consortia, and educational partnerships on how to utilize nationally recognized skill standards and occupational certifications in their program designs and operations so they all share a common organizing framework."

The Louisiana Vision

The Louisiana Workforce Commission has adopted a measure specifying that "nationally recognized, industry-based skill standards and occupational certifications should be firmly embedded in policies and procedures at every level of Louisiana's workforce investment system, including the state WIB, local WIBs, State partner agencies, One Stop operators, and training providers. All of these entities should institute the practice that occupational training programs under WIA: a) align with/use existing nationally

recognized, industry-based skill standards and certifications as the basis for developing competency-based learning objectives, curricula, instructional methods, teaching materials, and classroom/worksite activities; b) prepare their students/trainees to satisfy the employer knowledge and skill requirements assessed by related examinations; and c) provide their students/trainees with the opportunity to take these exams and receive certifications corresponding to their courses of study."

Louisiana's action-oriented vision is to convene the state's business, government, and education partners, and establish industry-based certification as the pivotal component that links and supports four primary statewide reform initiatives. These four initiatives are: standards-based school accountability enhancement; higher education redesign; workforce education/training overhaul; and economic development (Vision 2020).

Key elements of this vision include: the Louisiana Industry-Based Certification Council; the interagency work group; the Leadership Summit on Industry-Based Certifications; and the statewide certification public awareness campaign.

The Louisiana Industry-Based Certification Council (IBCC) is the first state-level leadership group of its kind in the country. Its existence reflects the priority and importance of industry-based certifications to Louisiana's unified workforce and economic development strategies.

The IBCC makes policy recommendations, advocates for redesign of education and training efforts, promotes innovation, identifies model programs and activities, and seeks resources through industry partners and foundations to support and increase the utilization of industry-based certifications across the state. It will also work to identify the implications of industry-based certifications for helping remove barriers and find solutions to secondary and post-secondary completion, and to improve acquisition of required workplace oriented basic skills.

Each year, the IBCC endorses several new certifications that represent occupations identified as "most-in-demand" by the state's Occupational Forecasting Conference, that correspond with the Louisiana Department of Economic Development's Vision 2020, and that meet stated employer needs. State partner agencies pledge cooperation to move forward with the certifications highlighted for that year.

The IBCC is composed of representatives from all the state agencies that participate in workforce education and training in Louisiana, including the Governor's Office of the Workforce Commission, the Board of Regents, the Louisiana Community and Technical College System, and the state Departments of Economic Development, Education, Labor, Public Safety and Corrections, and Social Services.

The interagency work group is tasked with creating the appropriate infrastructure to support industry-based certification as a critical component of the state's major reform initiatives. This initiative involves development of a user-friendly registry/full-service web site to provide information about industry-based certification programs by

agencies/institutions in the state, and successful operation of the ongoing Louisiana Skill Standards Project in partnership with the NSSB.

By following a 22-Step Process designed by the NSSB, the interagency work group in 2001 identified an initial set of six leading certifications important to key economic sectors in Louisiana. These six certifications will be implemented across all of the delivery systems and funding streams in the state, and include the:

- A+ Certification, sponsored by CompTIA;
- Certified Internet Webmaster Certification Series, sponsored by Prosoft Training;
- Microsoft Office User Specialist Certification, delivered by Nivo International;
- Cisco Certified Network Associate Certification, sponsored by Cisco Systems;
- Child Development Associate Certification, sponsored by the Council for Professional Recognition; and
- Entry-Level, Advanced, and Expert Welder Certification, sponsored by the American Welding Society.

The Leadership Summit on Industry-Based Certifications was held in November 2001 in Baton Rouge. It was a two day event for state and local leaders; employers; higher education officials; community college chancellors; technical college directors; public school superintendents; Workforce Investment Board members and administrators; economic development and chamber of commerce representatives; individuals from business and industry associations and labor organizations; vocational rehabilitation, correctional education, and social services staff; information technology professionals; and others.

The Summit made the case for redesign of Louisiana's secondary, post-secondary, and workforce education and training systems. Follow-up to the summit will entail regional planning by partnering education and training agencies and employer groups for further development of industry-based certification endeavors designed to fit each region's workforce needs and economic realities.

The statewide certification public awareness campaign is targeted to employers, educators and trainers, and individual consumers, and is designed to promote the widespread use of nationally recognized, industry-based occupational certifications across Louisiana. Featuring the theme – "Real Training for Real Jobs" – it strongly encourages students to be sure that the occupational preparation programs they are considering do, in fact, provide the opportunity to earn an industry-based certification. The campaign has its own logo as the state's mark of quality, and has produced two videos – *Industry-Based Certifications: A Business and Industry Call to Action* and *Get Real: Real Training for Real Jobs.*

Related endeavors planned for Louisiana include –

- Addition of high school diploma endorsements to indicate attainment of industry-based certifications;
- Articulation of industry-based certification coursework between secondary, post-secondary, and higher education;
- Use of Temporary Assistance for Needy Families surplus funds to increase attainment of industry-based certifications by low-income learners; and
- Pre-enrollment of youth offenders in technical colleges for the purpose of earning industry-based certifications in high demand occupations.

The "Louisiana Vision" is an energetic, unified, and groundbreaking undertaking that will position industry-based certifications as the linchpin for progressive education and training improvement and enhancement across all of the state's delivery systems and funding streams. Its successful actualization will provide a beacon for all other statewide, public sector supply-side workforce development efforts throughout the nation.

VII. Selection and Implementation of Nationally Recognized, Industry-Based Occupational Certifications

WIA program personnel seem to prefer occupational certifications over skill standards because nationally recognized, industry-based occupational certifications provide tangible outcomes verified (through assessment) and documented (through credentials) in one package. Certifications are regarded as easier to use at this stage of WIA evolution. As previously noted, with skill standards alone, assessments and certifications still have to be developed by users.

NSSB 22-Step Process

Through its State Engagement Strategy activities, the NSSB has developed a replicable 22-Step Process for using nationally recognized, industry-based occupational certifications. The following are the key steps in this process, which is still a work-in-progress:

1. Determine primary stakeholders, including representatives from business, industry, labor, workforce development, education, economic development, training providers, etc.

2. Explain the process to stakeholders.

3. Obtain commitments from key stakeholders to participate in the process as partners.

4. Develop the work plan, including roles and responsibilities of participating individuals/institutions/organizations, the specific resources they can contribute, and a calendar of events.

5. Gather information on:

    a. Current/projected labor market demands and skill shortages in high wage, high performance, high growth occupations;
    b. Current occupational skills training conducted (type and number of programs, location and scheduling/frequency of programs, number of participants enrolled), and related programmatic use of nationally recognized occupational certifications;
    c. Current economic development plans and requirements; and
    d. Current business and industry certification requirements, and related employer use of nationally recognized occupational certifications.

6. Identify 3 – 5 priority occupations to be included in the initial search effort, as an easily manageable starting point.

7. Designate criteria (including items such as content, cost, availability, examination protocols, utilization requirements, etc.) against which to consider/screen existing nationally recognized certifications related to these occupations. For a comprehensive approach, apply the NSSB Occupational Certification Feasibility Review Document and Checklist (OCFRD/C) as a screening mechanism.

8. Locate and research existing certifications in the 3 – 5 chosen occupations, using the feasibility review document/checklist to record, organize, and assess the data.

9. Review findings for suitability, relevance, impact on existing needs, resource implications, and potential design modifications and/or operational adjustments necessary to incorporate these certifications/examinations into current occupational training endeavors (e.g., curriculum alignment changes; program certification; instructor training/certification; acquisition of required facilities, space, equipment, materials, and supplies, etc.).

10. Select appropriate, nationally recognized, industry-based occupational certifications for initial implementation, or conduct further searches, if needed.

11. Hold discussions and negotiate agreements with each selected certification/ examination provider, addressing particulars such as contractual arrangements, bottom-line costs/payments, implementation steps and related timelines, provider obligations, scheduling/locating/conducting exams, receiving student/trainee results, etc. Careful attention should be given to details, since different certifications can vary widely in their implementation specifics.

12. Delineate a plan for instituting each certification/examination, covering:

    a. Incorporation of certification by participating programs on full-scale/pilot project basis, as well as related deployment procedures and infrastructure elements;
    b. Use of implementation teams, workgroups, and dedicated personnel;
    c. Linkages and partnerships to promote uniformity and consistency across delivery systems and funding streams;
    d. Information dissemination, orientation, organizational capacity building, and professional development;
    e. Mechanisms for monitoring progress, providing technical assistance, tracking outcomes, and ensuring quality control; and
    f. Approaches for acquiring "champions" and marketing the certification to attain widespread acceptance/use by employers.

13. Secure and commit resources needed to fund start-up/long-term programmatic efforts and to cover individual student/trainee costs, as appropriate.

14. Make required program design modifications and/or operational adjustments. Obtain necessary program certification, instructor training/certification, facilities,

space, equipment, materials, and supplies. Align learning objectives, curricula, instructional methods, teaching materials, and classroom/worksite activities to stated employer knowledge and skill specifications. Where possible, facilitate integration of occupational and academic knowledge and skills, contextualized learning, and program articulation.

15. Carry out certification implementation plans.

16. Initiate related courses of study provided by participating education and training programs.

17. Administer selected certification examinations.

18. Evaluate results.

19. Refine process, determining the approach (structure, elements, procedures, and sequence of activities) necessary to successfully incorporate certifications on an ongoing basis into occupational preparation programs operating within and across various education and training delivery systems and funding streams.

20. Ascertain the next group of occupational certifications to consider.

21. Start the access and utilization process again.

22. Merge with the voluntary national system of skill standards and integrate products developed by the NSSB's Voluntary Partnerships.

VIII. Establishment of the Work Readiness Certification

As noted previously, more than half of America's youth leave school without the foundation skills necessary to find and hold a good job. Members of the National Association of Manufactures state that far too many of their workers are deficient in basic mathematics, reading comprehension, and writing skills, and in critical work readiness skills such as arriving on time and staying at work all day.

According to the Workforce Investment Board of the Treasure Coast in Florida, a major personnel problem facing companies across its four counties is the "lack of work readiness skills" among new job applicants. This finding has been "validated through employer focus groups, a National Science Foundation study completed by the local community college, and employer/labor market surveys." The call for WIA program graduates to have work readiness skills is echoed by business and industry nationwide, from coast to coast and border to border.

In order to be completely responsive to business and industry needs, education and training providers must ensure that participants leaving their programs are equipped not only with nationally recognized occupational certifications, but also with verified work readiness knowledge and skills.

A model approach for addressing this widespread employer requirement is beginning to emerge – the Work Readiness Certification. The Work Readiness Certification is intended to be a locally determined, cross-business/industry, generic, composite profile of the ideal entry-level employee in a particular jurisdiction or labor market. It will signify achievement of a single, customized set of foundation work readiness knowledge and skills by WIA program participants (emerging, transitional, dislocated, and incumbent workers).

The knowledge and skill categories in the Work Readiness Certification are representative of those contained in NSSB's common format and language, as well as the adult/youth employment competency areas instituted under the Job Training Partnership Act. Knowledge and skill categories include:

- Pre-Employment (e.g., career decision making, labor market information, resumes, resume cover letters, applications, and interviewing);
- Work Maturity (e.g., punctuality, attendance, work habits/attitudes/behaviors, appearance, interpersonal relations, and task completion);
- Employability (e.g., listening, speaking, use of basic computer tools, problem solving, organizing and planning, adaptability, and teamwork);
- Academic (e.g., reading, writing, and mathematics); and

- Occupational/Technical (e.g., customer service, telephone etiquette, and safety procedures).

The Work Readiness Certification process incorporates a number of key elements, including, but not limited to, the following:

- Ongoing, active involvement of employers, educators, training providers, and other project/community partners;
- Identification of appropriate knowledge and skill sets through stakeholder interactive sessions, facilitated focus groups, and surveys;
- Employer-driven development of quantified, competency-based, performance-oriented standards, that clearly specify the knowledge and skills to be learned, the proficiency levels to be demonstrated, and the means of measurement to be used;
- Location or initiation of related training programs sufficient in content, method, intensity, and duration to effectively teach the knowledge and skills required for work readiness;
- Adoption, adaptation, or creation of matching assessment protocols and scoring procedures, with strong emphasis on accessing, reviewing, selecting, and utilizing currently available, proven assessment instruments applicable to the competency-based, work readiness standards;
- Institution of a well-designed certificate format responsive to stakeholder needs;
- Validation of standards, assessment protocols, and certificate format by stakeholders;
- Implementation of streamlined, user-friendly administrative and operational guidelines, including inter-rater reliability techniques and data security mechanisms;
- Delivery of individual professional development and organizational capacity building activities on work readiness standards, teaching, assessment, and certification;
- Marketing of work readiness certification to gain acceptance and create demand among business/industry across the local jurisdiction or labor market;
- Pilot testing of total work readiness approach, monitoring progress at frequent intervals; and
- Evaluation of results and refinement of process, for continuous quality improvement.

Integrating the Work Readiness Certification process with the use of nationally recognized, industry-based skill standards and occupational certifications will further enhance the capability of WIA efforts nationwide to successfully address the demands of the "new economy," to counteract the negative impact of the current skills gap, and to eliminate the inconsistency of occupational preparation endeavors within and across states.

IX. Resources for Further Research

The National Skill Standards Board has a broad range of further resource materials on industry-based skill standards and certifications available on its Web site: www.nssb.org.

Specific questions concerning WIB use of industry-based skill standards and certifications should be directed to the NSSB Director of Special Projects, Rick Spill, at (707) 253-6159, extension 111, or via e-mail at spill@nvedc.org.

The NSSB also has available on its Web site a substantially longer (129 pages) earlier working paper on this topic entitled *An Introduction to the Use of Skill Standards and Certifications in WIA Programs*, NSSB, April 5, 2001. A copy of this earlier working paper is available directly from the NSSB, or may be downloaded from the NSSB Web site.

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